

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) In a data center capable of communicating with a remote enterprise network, a method for enabling a user to access network data of the remote enterprise network through a data tunnel between the data center and the remote enterprise network that operates as a virtual private network, the method comprising the acts of:

receiving a data request from the remote enterprise network;

in response to the data request, transmitting ongoing reply data to the remote enterprise network, such that a data tunnel is established between the data center and the remote enterprise network, the data tunnel operating as a virtual private network;

receiving an access request to access network data of the remote enterprise network from the user;

transmitting the access request to the remote enterprise network using the data tunnel;

receiving the network data from the remote enterprise network in response to the access request; and

transmitting the network data to the user.

2. (Original) A method as defined in claim 1, wherein the data request is received by a designated server, and wherein the designated server is one of multiple servers of the data center.

3. (Original) A method as defined in claim 2, wherein a database of the remote enterprise network is notified which of the multiple servers is the designated server, the designated server notifying the database when a data tunnel is established.
4. (Original) A method as defined in claim 3, wherein the access request is received by a designated telephony node of the data center, and wherein the user generates the access request using a telephone system.
5. (Original) A method as defined in claim 3, wherein the access request is received by one of multiple servers of the data center over the Internet, and wherein the access request is generated by the user using a device connected to the Internet.
6. (Original) A method as defined in claim 4, wherein the designated telephony node of the data center transmits the access request to the designated server.
7. (Original) A method as defined in claim 6, wherein the designated telephony node determines which of the multiple servers is the designated server by communicating with at least one of the multiple servers.
8. (Original) A method as defined in claim 6, wherein the designated telephony node determines which of the multiple servers is the designated server by communicating with the database.

9. (Original) A method as defined in claim 1, wherein the act of receiving an access request to access network data of the remote enterprise network from the user further comprises the act of authenticating the identity of the user.

10. (Original) A method as defined in claim 9, wherein authenticating the identity of the user comprises the act of receiving a valid personal identification number.

11. (Original) A method as defined in claim 4, wherein the act of transmitting the network data to the user includes the acts of:

transmitting the network data from the designated server to the designated telephony node; and

transmitting the network data from the designated telephony node to the telephone system used by the user.

12. (Original) A method as defined in claim 5, wherein the act of transmitting the network data to the user includes the act of transmitting the network data from the designated server to the device that is connected to the Internet.

13. (Original) In an enterprise network capable of communicating with a remote data center network, a method for enabling a user to access network data of the enterprise network through a data tunnel between the remote data center and the enterprise network that operates as a virtual private network, the method comprising the acts of

transmitting a data request to the remote data center;

receiving ongoing reply data from the remote data center in response to the data request, such that a data tunnel is established between the remote data center and the enterprise network, the data tunnel operating as a virtual private network;

receiving, from the remote data center, an access request to access network data of the enterprise network, the access request having been received by the remote data center from the user and thereafter transmitted by the remote data center to the enterprise network through the data tunnel; and

in response to the access request, transmitting the network data to the remote data center such that the user is enabled to access the network data.

14. (Original) A method as defined in claim 13, wherein the data request includes a uniform resource identifier.

15. (Original) A method as defined in claim 13, wherein the data request is transmitted through a firewall.

16. (Original) A method as defined in claim 15, wherein the data request is transmitted through a proxy server.

17. (Original) A method as defined in claim 13, wherein the reply data is received through port 443.

18. (Original) A method as defined in claim 17, wherein the reply data is received using Secure Sockets Layer protocol.

19. (Original) A method as defined in claim 13, wherein the reply data is received through port 80.

20. (Original) A method as defined in claim 13, wherein the act of transmitting the network data to the remote data center includes the acts of:

encrypting the network data to comply with Secure Sockets Layer protocol,
transmitting the network data to the remote data center through a second data tunnel, such that the transmission of the network data operates as a temporary virtual private network; and
closing the second data tunnel.

21. (Original) A method as defined in claim 13, wherein upon receiving the access request, the method further comprises the act of:

performing an act upon the network data.

22. (Original) A method as defined in claim 21, wherein performing an act upon the network data includes retrieving email message data.

23. (Original) In a data center capable of communicating with a remote enterprise network, a method for enabling a user to access network data of the remote enterprise network through a data tunnel between the data center and the remote enterprise network that operates as a virtual private network, the method comprising the acts of:

receiving, from the remote enterprise network, a uniform resource identifier associated with a resource of a server of the data center;

in response to receiving the uniform resource identifier, invoking the resource to generate ongoing reply data and transmitting the ongoing reply data to the remote enterprise network, such that a data tunnel is established between the data center and the remote enterprise network in response to an action of the remote enterprise network, the data tunnel operating as a virtual private network;

receiving an access request to access network data of the remote enterprise network from the user;

as the ongoing reply data is being transmitted to the remote enterprise network, inserting the access request into the ongoing reply data and transmitting the access request to the remote enterprise network using the data tunnel;

receiving the network data from the remote enterprise network in response to the access request; and

transmitting the network data to the user.

24. (Original) A method as defined in claim 23, wherein the act of receiving the network data from the remote enterprise network comprises the act of receiving through a second data tunnel the network data from the remote enterprise network, the second data tunnel

operating as a temporary virtual private network is closed after the network data is received by the data center.

25. (Original) A method as defined in claim 23, wherein the act of transmitting the access request to the remote enterprise network comprises the act of transmitting the access request using Secure Sockets Layer protocol.

26. (Original) A method as defined in claim 23, wherein the act of receiving an access request to access network data of the remote enterprise network from the user further comprises the act of authenticating the identity of the user.

27. (Original) A method as defined in claim 26, wherein authenticating the identity of the user comprises the act of receiving a valid personal identification number.

28. (Original) A computer program product for implementing in a data center a method for enabling a user to access network data of a remote enterprise network through a data tunnel between the data center and the remote enterprise network that operates as a virtual private network, the computer program product comprising:

a computer-readable medium carrying computer-executable instructions for implementing the method, the computer-executable instructions comprising:

program code means for receiving a data request from the remote enterprise network;

program code means for transmitting, in response to the data request, ongoing reply data to the remote enterprise network, such that a data tunnel is established between the data center and the remote enterprise network, the data tunnel operating as a virtual private network;

program code means for receiving an access request to access network data of the remote enterprise network from the user;

program code means for transmitting the access request to the remote enterprise network using the data tunnel;

program code means for receiving the network data from the remote enterprise network in response to the access request; and

program code means for transmitting the network data to the user.

29. (Original) A computer program product as defined in claim 28, wherein the computer-executable instructions further comprise program code means for authenticating the identity of the user.

30. (Original) A computer program product as defined in claim 28, wherein the computer-executable instructions further comprise program code means for enabling telephony nodes of the data center to receive the access request and to transmit the access request to a designated server, wherein the designated server is transmitting the ongoing reply data to the remote enterprise network.

31. (Original) A computer program product as defined in claim 30, wherein the designated server is one of multiple servers of the data center, and wherein the user generates the access request using a telephone system.

32. (Original) A computer program product as defined in claim 28, wherein the computer-executable instructions further comprise program code means for caching a copy of network data in a database of the data center.

33. (Original) A computer program product as defined in claim 32, wherein the computer-executable instructions further comprise program code means for transmitting the cached copy of the network data to the user in response to receiving the access request from the user.

34. (Original) In an enterprise network capable of communicating with a remote data center, a method for enabling a user to manipulate network data of the enterprise network through a data tunnel between the remote data center and the enterprise network that operates as a virtual private network, the method comprising the acts of

transmitting a data request to the remote data center;

receiving ongoing reply data from the remote data center in response to the data request, such that a data tunnel is established between the remote data center and the enterprise network, the data tunnel operating as a virtual private network;

receiving, from the remote data center, a user request for an act to be performed on network data of the enterprise network, the user request having been received by the remote data center from the user and thereafter transmitted by the remote data center to the enterprise network through the data tunnel; and

upon receiving the user request, performing the act on network data of the enterprise network.

35. (Currently amended) A method as defined in claim 34 ~~claim 32~~, wherein performing an act upon the network data includes deleting email.

36. (Currently amended) A method as defined in claim 35 ~~claim 33~~, wherein performing an act upon the network data includes faxing the network data to the user.

37. (Currently amended) A method as defined in claim 35 ~~claim 33~~, wherein performing an act upon the network data includes retrieving a web page.

38. (Currently amended) A method as defined in claim 35 ~~claim 33~~, wherein performing an act upon the network data includes retrieving email messages.

39. (Original) In a data center capable of communicating with a remote enterprise network, a method for enabling a user to access network data of the remote enterprise network through a data tunnel between the data center and the remote enterprise network that operates as a virtual private network, the method comprising the acts of:

receiving network data from the remote enterprise network through a temporary data tunnel that is established between the data center and the remote enterprise network, the temporary data tunnel operating as a virtual private network;

caching a copy of the network data in a database of the data center;

receiving an access request to access network data of the remote enterprise network from the user;

retrieving the network data from the database in response to the access request;

and

transmitting the network data to the user.

40. (Original) A method as defined in claim 39, wherein the network data of the enterprise network is disconnected from the enterprise network after the network data is received by the data center.

41. (Original) A method as defined in claim 39, wherein the network data of the enterprise network is disconnected from the user after the network data is received by the data center.

42. (Original) A method as defined in claim 39, wherein the user determines what network data is transmitted to the data center, and wherein the user determines what network data is cached in the database.

43. (Original) A method as defined in claim 39, wherein the act of receiving an access request to access network data of the remote enterprise network from the user further comprises the act of authenticating the identity of the user.

44. (Original) A method as defined in claim 39, wherein the access request comprises a command to update network data.

45. (Currently amended) A method as defined in claim 44, further comprising the acts of updating the cached copy of network data, and transmitting update information to the enterprise network ~~within the ongoing reply data~~.

46. (New) A method as defined in claim 39, further comprising:
receiving a data request from the remote enterprise network; and
in response to the data request, transmitting ongoing reply data to the remote enterprise network, such that a data tunnel is established between the data center and the remote enterprise network, the data tunnel operating as a virtual private network.

47. (New) A method as defined in claim 46, wherein the access request comprises a command to update network data.

48. (New) A method as defined in claim 47, further comprising the acts of updating the cached copy of network data, and transmitting update information to the enterprise network within the ongoing reply data.